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SEARCH REQUEST FORM

Requester's Full Name: Jeffrey E. Russel Examiner # : 62785 Date: 6-10-2005

Art Unit: 1654 Phone Number: 2-0969 Serial Number: 10/666,095

Location (Bldg/Room#): REM 3D19 (Mailbox #): 3C18 Results Format Preferred (circle): PAPER DISK

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To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following:

Title of Invention: Anti-Fibril Peptides

Inventors (please provide full names): R. Hammer, Y. Fu, J. Arcain, T. Miller, M. McLaughlin, R. McCarley

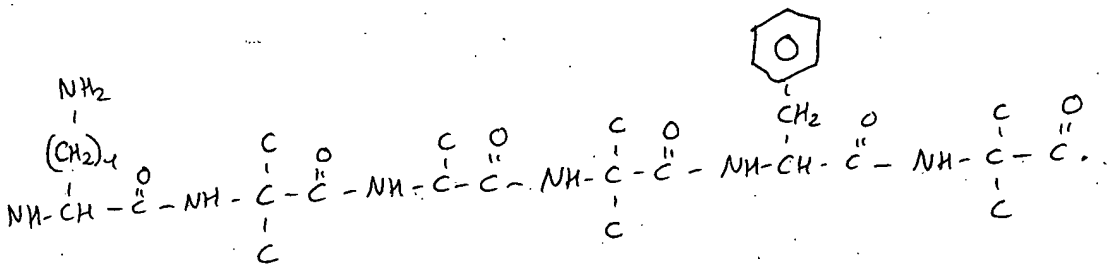
Earliest Priority Date: 9-18-2003

Search Topic:

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known.

For Sequence Searches Only ***Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.***

Please search the following partial structure:



Thank you.

JR

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Searcher: _____	____ NA Sequence (#)	____ STN ____ Dialog
Searcher Phone #: _____	____ AA Sequence (#)	____ Questel/Orbit ____ Lexis/Nexis
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Date Searcher Picked Up: _____	____ Bibliographic	____ In-house sequence systems
Date Completed: _____	____ Litigation	____ Commercial ____ Oligomer ____ Score/Length ____ Interference ____ SPDI ____ Encode/Transl ____ Other (specify)
Searcher Prep & Review Time: _____	____ Fulltext	
Online Time: _____	____ Other	

=> d ibib abs hitstr l13 1-3

L13 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2005:474923 HCAPLUS
DOCUMENT NUMBER: 143:20040
TITLE: Anti-fibril peptides
INVENTOR(S): Hammer, Robert P.; Fu, Yanwen; Aucoin, Jed P.; Miller, Tod J.; McLaughlin, Mark L.; McCarley, Robin L.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 28 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

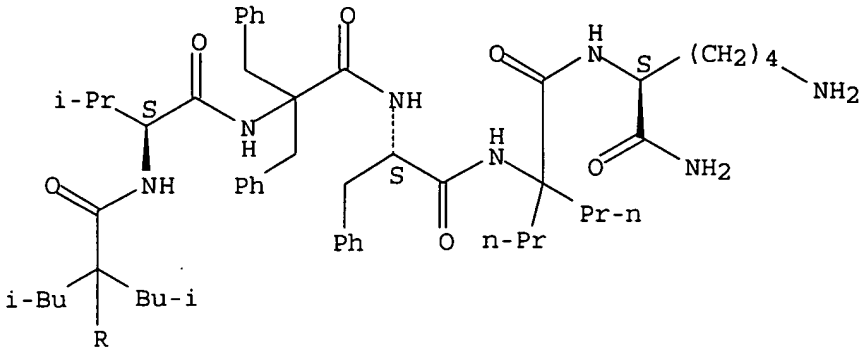
PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2005119187	A1	20050602	US 2003-666095		20030918
PRIORITY APPLN. INFO.:			US 2002-412081P	P	20020919

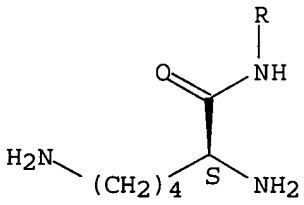
AB Short peptides containing Cαα-dipropylglycine (Dpg) at alternating sequence positions were synthesized and examined for conformational behavior. Peptide assembly was performed using Fmoc-solid-phase chemical where the coupling with PyAOP could be significantly enhanced at elevated temperature CD (CD) and NMR conformational studies revealed that incorporation of Dpg residues induced folded structures into peptides. It was observed that Dpg residues adopted helical conformation in a helix-promoting sequence. The resulting helical structure was comprised of consecutive β-turns whose structure was stabilized by salt bridge in aqueous solution In this study, the preparation of sterically and polyfunctional Cαa-disubstituted amino acids (ααAAs) via alkylation of Et nitroacetate and transformation into derivs. ready for incorporation into peptides are described. Treatment of Et nitroacetate with N,N-diisopropylethylamine in the presence of a catalytic amount of tetraalkylammonium salt, followed by the addition of an activated alkyl halide or Michael acceptor, gave the doubly C-alkylated product in good to excellent yields. Selective nitro reduction with Zn in acetic or hydrogen over Raney Ni gave the corresponding amino ester that, upon saponification, can be protected with the fluorenylmethyloxycarbonyl (Fmoc) group. The synthesis of a sterically demanding Cαα-dibenzylglycine (Dbzg), and an orthogonally protected, tetrafunctional Cαα-disubstituted analog of aspartic acid Bcmg is described. The preparation of amyloid fibril blocker peptides based on amyloid peptide hydrophobic core Aβ16-20 is described.

IT **397298-97-4P 642471-66-7P 852626-99-4P 852627-00-0P**
RL: BSU (Biological study, unclassified); PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(anti-fibril peptides)

RN 397298-97-4 HCAPLUS
CN L-Lysinamide, L-lysyl-2-(2-methylpropyl)leucyl-L-valyl-α-(phenylmethyl)phenylalanyl-L-phenylalanyl-2-propylnorvalyl-L-lysyl-L-lysyl-L-lysyl-L-lysyl-L-lysyl- (9CI) (CA INDEX NAME)

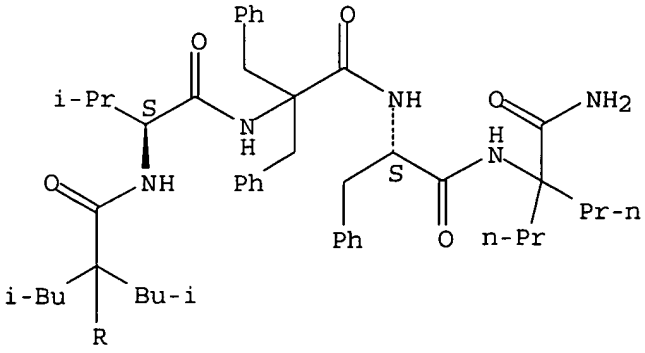
Absolute stereochemistry.

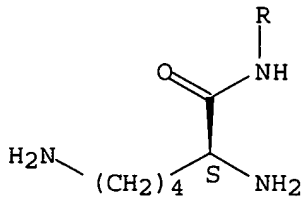




RN 852627-00-0 HCAPLUS
CN Norvalinamide, L-lysyl-2-(2-methylpropyl)leucyl-L-valyl-α-(phenylmethyl)phenylalanyl-L-phenylalanyl-2-propyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.





L13 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:893139 HCAPLUS
DOCUMENT NUMBER: 140:94278

TITLE: Facile Synthesis of α,α-Diisobutylglycine and Anchoring its Derivatives onto PAL-PEG-PS Resin
AUTHOR(S): Fu, Yanwen; Etienne, Marcus A.; Hammer, Robert P.
CORPORATE SOURCE: Department of Chemistry, Louisiana State University, Baton Rouge, LA, 70803, USA
SOURCE: Journal of Organic Chemistry (2003), 68(25), 9854-9857
CODEN: JOCEAH; ISSN: 0022-3263
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

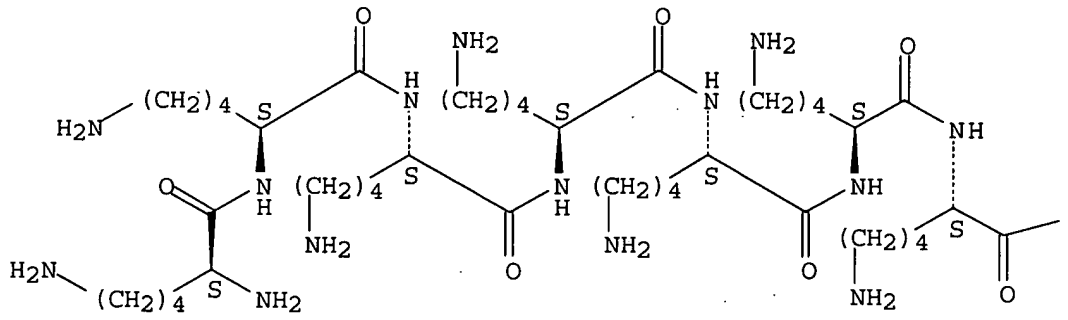
AB α,α-Diisobutylglycine (Dibg) was synthesized using a Pd-mediated dialkylation of Et nitroacetate as a key first step. The free α,α-diisobutylglycine was Nα-protected and was applied to solid-phase synthesis of a conformationally constrained peptide. Thus, peptide H-(Lys)7-Dibg-Val-Dbzg-Phe-Dpg-NH2 (Dbzg = α,α-dibenzylglycine, Dpg = α,α-dipropylglycine) was obtained in superior quality by using a trialkoxybenzyl linker on PEG-PS grafted support, to which Fmoc-Dpg-OH was attached by a mixed anhydride method.

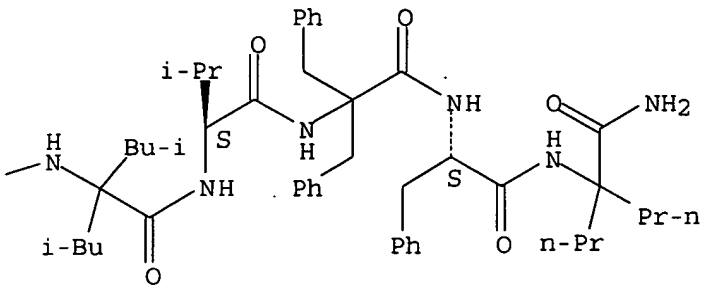
IT **642471-66-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(alkylation of nitroacetate for preparation of (diisobutyl)glycine and its use in peptide synthesis using PAL-PEG-PS as a solid support)

RN 642471-66-7 HCAPLUS
CN Norvalinamide, L-lysyl-L-lysyl-L-lysyl-L-lysyl-L-lysyl-L-lysyl-L-lysyl-2-(2-methylpropyl)leucyl-L-valyl-α-(phenylmethyl)phenylalanyl-L-phenylalanyl-2-propyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A





REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:924458 HCAPLUS
DOCUMENT NUMBER: 136:167687
TITLE: Efficient acylation of the N-terminus of highly hindered Cα,α-disubstituted amino acids via amino acid symmetrical anhydrides
AUTHOR(S): Fu, Yanwen; Hammer, Robert P.
CORPORATE SOURCE: Department of Chemistry, Louisiana State University, Baton Rouge, LA, 70803, USA
SOURCE: Organic Letters (2002), 4(2), 237-240
CODEN: ORLEF7; ISSN: 1523-7060
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 136:167687

AB Fmoc (Fmoc = 9-fluorenylmethyloxycarbonyl) amino acid sym. anhydrides are efficient and readily available reagents for acylation of the N-terminus of highly hindered Cα,α-dialkylated α-amino acids. Comparison of a variety of coupling protocols showed that the sym. anhydride method always provided the superior results. This method was successfully applied to the solid-phase synthesis of a peptide containing three ααAAs at alternating positions.

IT **397298-97-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(acylation of dialkylated amino acids via amino acid sym. anhydrides and application of this method to solid phase synthesis of peptide)

RN 397298-97-4 HCAPLUS
CN L-Lysinamide, L-lysyl-2-(2-methylpropyl)leucyl-L-valyl-α-(phenylmethyl)phenylalanyl-L-phenylalanyl-2-propylnorvalyl-L-lysyl-L-lysyl-L-lysyl-L-lysyl-L-lysyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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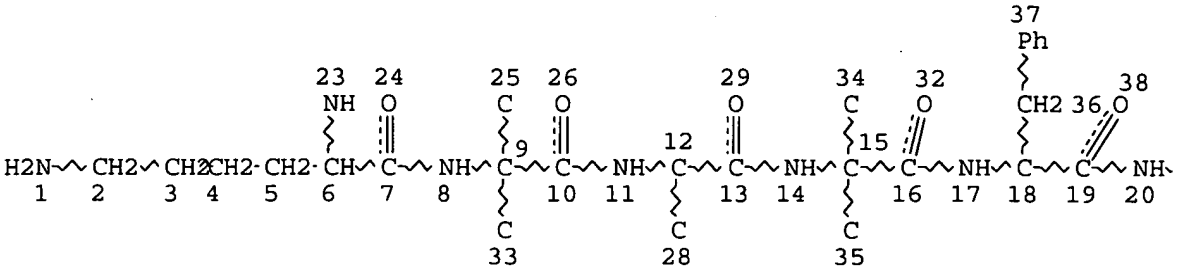

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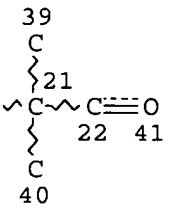

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DEFAULT ECLEVEL IS LIMITED

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STEREO ATTRIBUTES: NONE
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L13 3 SEA FILE=HCAPLUS ABB=ON L12

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